

Commonwealth of Kentucky
Division for Air Quality
PERMIT STATEMENT OF BASIS

Title V draft No. V-04-001
AMBRAKE MANUFACTURING LTD.
300 RING ROAD IN ELIZABETHTOWN, KY.

June 3, 2004

BRIAN SMITH, REVIEWER
Plant I.D. # 21-093-00054
Application Log #50718

SOURCE DESCRIPTION:

AMBRAKE Manufacturing Ltd. owns and operates a manufacturing facility in Elizabethtown, Kentucky that specializes in the manufacture of automobile brake parts and accessories. The source began construction in 1986 and started operations in 1988. The plant manufactures drum brake assemblies, disc brake assemblies, and brake components for various types of automobile models.

Ambrake produces all the components that make up the disc brake assemblies, including pads, calipers, and supports. Brake pads are produced by using heat and pressure to adjoin raw friction material to metal pressure plates. The friction material is produced in mixing, blending, drying, and performing operations. The metal pressure plates are mechanically punched from sheet steel and phosphate treated. Brake pads are processed in various cutting, grinding, slitting, heat-treating and coating operations before being added to the final brake assemblies along with calipers and supports that have been machined and zinc plated on site.

In the process of manufacturing drum brake assemblies, the drum brake shoe backing plates are punched from sheet steel, welded, drilled, shaved, cleaned, phosphate treated, and coated to meet customer specifications. Then the backing plates are affixed to purchased friction material using adhesive, sent through mechanical grinding operations and then mechanically attached to the final brake assemblies.

Ambrake is a Title V major source due to emissions of hazardous air pollutants and volatile organic compounds. Specifically, Ambrake has the potential to emit greater than 25 tons per year of combined HAPs and greater than 100 tons per year of VOCs. This source is not major under PSD because it is not one of the 28 source categories for which PSD is triggered by potential emissions of 100 tons/year.

COMMENTS:

Below is a list of all emission points at Ambrake, along with rated capacities, applicable regulations, and emission factor sources. All emission points commenced construction in 1986.

EP 01, 02, 03: 7.0 mmBtu/hr Natural Gas Boilers

Applicable Regulation: 401 KAR 59:015

Rated Capacity: 7.0 mmBtu/hr

Pollutants Emitted: PM₁₀, CO, NO_x, VOC, SO₂

Emission Factor Source: AP-42

EP 04: Front Zinc Platers

Applicable Regulation: 401 KAR 59:010
Rated Capacity: 10,000,000 parts/year
Pollutants Emitted: PM₁₀, HCl, VOC, Cr
Emission Factor Source: Applicant

EP 05: Rear Zinc Platers

Applicable Regulation: 401 KAR 59:010
Rated Capacity: 3,000,000 parts/year
Pollutants Emitted: PM₁₀, HCl, VOC, Cr
Emission Factor Source: Applicant

EP 12: Unlined Shoe Process

Applicable Regulation: 401 KAR 59:010
Rated Capacity: 7,100,000 parts/year
Pollutants Emitted: PM₁₀, VOC, MEK, Toluene, Methanol
Emission Factor Source: Applicant

EP 13: Shoe & Lining Adhesive Ovens

Applicable Regulation: 401 KAR 59:010
Rated Capacity: 7,100,000 parts/year
Pollutants Emitted: PM₁₀, VOC, MEK, Chlorobenzene, MIBK, Formaldehyde
Emission Factor Source: Applicant

EP 14: Marking and Painting #1-#3

Applicable Regulation: 401 KAR 59:010
Rated Capacity: 16,200,000 parts/year (three lines)
Pollutants Emitted: PM₁₀, VOC, Glycol Ether, Formaldehyde
Emission Factor Source: Applicant

EP 15: Cure Ovens - 7 units

Applicable Regulation: 401 KAR 59:010
Rated Capacity: 1.98 MMBtu/hr
Pollutants Emitted: PM₁₀, VOC, CO, SO₂, NO_x
Emission Factor Source: Applicant

EP 16: Friction Materials & Shoe and Line Grinding

Applicable Regulation: 401 KAR 59:010
Rated Capacity: 31,100,000 parts/year
Pollutants Emitted: PM₁₀
Emission Factor Source: Applicant

EP 17: Pressure Plate Surface Treatment

Applicable Regulation: 401 KAR 59:010
Rated Capacity: 24,000,000 parts/year
Pollutants Emitted: PM₁₀, VOC, MEK, Toluene, Formaldehyde
Emission Factor Source: Applicant

EP 18: Small Parts Vapor Degreaser

Applicable Regulation: 40 CFR 63, Subpart T; 401 KAR 59:185

Rated Capacity: 3.4 lbs/hr

Pollutants Emitted: VOC, Trichloroethylene

Emission Factor Source: Applicant

Insignificant Activities

The following emission units qualify as insignificant activities and are all subject to the generally applicable regulation 401 KAR 59:010:

1. Nickel Plater
2. Nitric Acid Cleaning
3. Nickel Solution Mixing
4. Nickel Stripper Tank
5. Electro-deposition Metal Preparation
6. Electro-deposition Painting
7. Spot Welders
8. Natural Gas Fired Space Heater (8 units)
9. Surface Heat Treatment (6 units)
10. Pressure Plate Blanking
11. Die Cleaning Booth
12. Piston Buffing
13. 365,000 Btu/hr Boiler
14. Natural Gas Fired Building Heating Unit (3 units, 7.5 MMBTU/hr each)
15. Box Washer
16. Aluminum Caliper Washer
17. Wastewater Treatment Process Vents
18. Marking and Painting Powder Coat Line #1
19. Marking and Painting Powder Coat Line #2
20. Vacuum System

Insignificant Activities (cont.)

21. Ink Jet Printers (4)

22. Sand Blaster

23. Pad Disk Assembly Area

24. Sealer Machine

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.